IN THE UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF GEORGIA
ATLANTA DIVISION

ROOSEVELT ROSE, JR., *Plaintiff*, v. BECTON, DICKINSON AND COMPANY, a New Jersey company, *Defendant*.	Case No. **PLAINTIFF DEMANDS TRIAL BY JURY**

COMPLAINT AND DEMAND FOR JURY TRIAL

Plaintiff Roosevelt Rose, Jr. brings this Complaint and Demand for Jury Trial against Defendant Becton, Dickinson and Company ("BD") for the harm it caused to individuals living and working in the vicinity of its medical sterilization facility as a result of its emissions of toxic ethylene oxide into the community. Plaintiff alleges as follows upon personal knowledge as to himself and his own acts and experiences, and, as to all other matters upon information and belief.

INTRODUCTION

1. Becton, Dickinson and Company operates an industrial medical sterilization plant in Covington, Georgia. As part of its sterilization process, BD uses and emits ethylene oxide ("EtO").

2. While ethylene oxide has been classified as a human carcinogen since 1994, and its carcinogenic and mutagenic properties have been well documented in studies since, at least, the mid-1980s, BD disregarded ethylene oxide's harmful properties and continues to release it into the surrounding community—entirely unbeknownst (until very recently) to area residents and workers.

3. Self-reported emission estimates from the BD facility indicate high levels of ethylene oxide release. BD has released as much as 101,755 pounds of ethylene oxide in a single year. While a portion of BD's EtO emissions are controlled through control devices, the largest amount of these emission estimates are uncontrolled "fugitive emissions" that have been escaping, and continue to escape, the BD facility.

4. Early air modeling around the BD facility shows ethylene oxide levels in excess of the U.S. Environmental Protection Agency's ("U.S. EPA") acceptable cancer risk and in excess of Georgia's Acceptable Ambient Concentration ("AAC") levels for EtO. In particular, air modeling shows high levels of EtO around residential areas in Covington.

5. As a result, and unbeknownst to them, individuals living and working near the BD facility face some of the highest long-term cancer risks in the United States. These individuals have been unknowingly inhaling ethylene

oxide on a routine and continuous basis for decades. Now they are suffering from a variety of cancers, reproductive issues, birth defects, and other life-altering health effects from their continuous exposure to ethylene oxide.

PARTIES

6. Plaintiff Roosevelt Rose, Jr. is a natural person and a citizen of the State of Georgia.

7. Defendant Becton, Dickinson and Company is a corporation organized and existing under the laws of New Jersey with its principal place of business located at 1 Becton Drive, Franklin Lakes, New Jersey 07417.

JURISDICTION AND VENUE

8. This Court has subject matter jurisdiction over this action pursuant to 28 U.S.C. § 1332(a) because (i) the parties are citizens of different states, (ii) and the amount in controversy exceeds $75,000.

9. This Court has personal jurisdiction over Defendant because it is registered to do business in this District and carries on a continuous and systematic part of its business throughout this District.

10. Venue is proper because Defendant operates a facility in this District and a substantial part of the events or omissions giving rise to Plaintiff's claims occurred in this District.

FACTUAL ALLEGATIONS

I. Brief Overview of the Ethylene Oxide Industry

11. Ethylene oxide is an odorless and colorless flammable gas at room temperature that is produced in large volumes for industrial uses.

12. Commercial medical equipment sterilizers use ethylene oxide in their sterilization processes for over 20 billion health care products every year in the United States. The EtO sterilization process begins by placing medical equipment in a gas chamber. After air is pumped out of the room, ethylene oxide is introduced and allowed to diffuse into the products for several hours. Once the medical equipment is sterilized, the ethylene oxide is pumped out of the chamber and the remaining EtO is allowed to slowly dissipate.

13. Since at least 1987, Defendant BD has used, and continues to use, EtO in its industrial medical device sterilization process.

14. Through this process, BD emits EtO into the air, allowing it to disburse and be carried by wind throughout the area surrounding its facility.

15. As such, local residents and workers in the area have unknowingly been exposed to carcinogenic ethylene oxide for decades, all while BD knew, or should have known, that EtO is dangerous, toxic, carcinogenic, mutagenic, and the cause of various illnesses.

II. Health Effects of Ethylene Oxide Exposure

16. Ethylene oxide is an odorless, colorless gas that is dangerous, toxic, carcinogenic, and mutagenic. EtO is highly reactive, readily taken up by the lungs, efficiently absorbed into the blood stream, and easily distributed throughout the human body. Its deleterious properties have been widely known for decades.

17. In a 1977 article, the National Institute of Occupational Safety and Health ("NIOSH") concluded that occupational exposure to ethylene oxide may increase the frequency of genetic mutations in humans. The NIOSH report also raised concerns about the potential carcinogenicity of ethylene oxide.

18. In 1981, the NIOSH released a subsequent report which recommended that EtO be regarded in the workplace as a potential occupational carcinogen. The NIOSH based its recommendation on new evidence of EtO's carcinogenic, mutagenic, and reproductive hazards, including studies demonstrating that EtO induced cancer in experimental animals. Specifically, the studies showed an increase in instances of leukemia in line with increases of EtO concentrations, in addition to other adverse effects on reproductive health. An epidemiological investigation of Swedish workers exposed to EtO also revealed an increased incidence of leukemia and other cancers.

19. In 1985, the U.S. Department of Health and Human Services published the Fourth Annual Report on Carcinogens and classified EtO as reasonably anticipated to be a human carcinogen.

20. In the early 1990s, the NIOSH published the largest and most informative epidemiological study of ethylene oxide. The study analyzed over 18,000 employees working with EtO at fourteen different industrial facilities sterilizing medical equipment and food spices. The study found sufficient evidence to support a causal link between exposure to ethylene oxide and increased mortality from lymphatic and hematopoietic cancers. Follow-up studies have additionally demonstrated an association between EtO exposure and breast cancer.

21. In 1994, as a result of these findings, the World Health Organization ("WHO") listed EtO as a Group 1 human carcinogen—the agency's highest risk classification—finding ethylene oxide to be carcinogenic to humans. In 2000, following suit, the U.S. Department of Health and Human Services reclassified EtO as "known to be a human carcinogen." In 2016, the U.S. EPA's Integrated Risk Information System similarly reclassified EtO as carcinogenic to humans and increased—by a multiple of thirty—its estimate of EtO's cancer potency.

22. Exposure to ethylene oxide has been widely studied and its negative health effects well documented. Presently, there is evidence linking ethylene oxide exposure to an increased risk of lymphohematopoietic cancers, such as non-Hodgkin's lymphoma, myeloma, and lymphocytic leukemia; breast cancer; tumors in the lungs, the uterus, and the brain; and reproductive and developmental impairments, including an increased rate of miscarriages and infertility.

23. Most recently, the Illinois Department of Public Health ("IDPH") conducted an assessment of cancer rates in the population surrounding the Sterigenics facility in Willowbrook, Illinois, which has been using and emitting EtO in its industrial sterilization process since 1984. The findings reaffirm the decades of studies on EtO exposure. The IDPH found elevated cases of:

- Hodgkin's lymphoma;
- Pediatric lymphoma;
- Breast cancer;
- Prostate cancer;
- Pancreatic cancer;
- Ovarian cancer; and
- Bladder cancer.

24. Worst of all, ethylene oxide exposure affects the most vulnerable members of the population. The U.S. EPA states that "for a single year of exposure to ethylene oxide, the cancer risk is greater for children than for adults. That is because ethylene oxide can damage DNA."

III. BD Emits Harmful Ethylene Oxide

a. The U.S. EPA Estimates High Risks of Cancer in Covington

25. On August 22, 2018, the U.S. EPA released the 2014 National Air Toxics Assessment ("NATA")—a screening tool that estimated cancer risks based on emission data in 76,727 census tracts across the United States.

26. The 2014 NATA revealed 109 census tracts in the United States with cancer risk scores greater than 100 cases per one million people exposed to toxic air pollution during their lifetime, more than what the U.S. EPA considers "acceptable" limits. One of these tracts surrounds the BD facility in Covington, Georgia; nine other tracts surrounding the facility had elevated cancer risks:

- Tract 13217100300: **214 per million**;
- Tract 13217100201: 60 per million;
- Tract 13217100600: 52 per million;
- Tract 13217100502: 52 per million;
- Tract 13217100700: 63 per million;

- Tract 13217100100: 62 per million;
- Tract 13297110602: 52 per million;
- Tract 13297110800: 53 per million;
- Tract 13217100202: 75 per million;
- Tract 13211010200: 51 per million;

27. Despite having only one census track with cancer risks above 100 per million, the U.S. EPA "considers any exposure, however small, to a carcinogen to create some cancer risk."

28. The U.S. EPA estimates the lifetime risk of developing cancer due to air toxics in one of these tracts near the BD facility to be up to *ten times higher* than the average national cancer risk across the U.S. population. Fewer than one percent of the census tracts in the U.S. have an estimated cancer risk due to air toxics that measures up to the cancer risk of the tracts surrounding the BD facility, with cancer risk scores greater than or equal to 100 per one million.

b. The U.S. EPA's Cancer Risks are Understated

29. While the 2014 NATA reveals higher than acceptable cancer risks in the areas around the BD facility, these risks are understated.

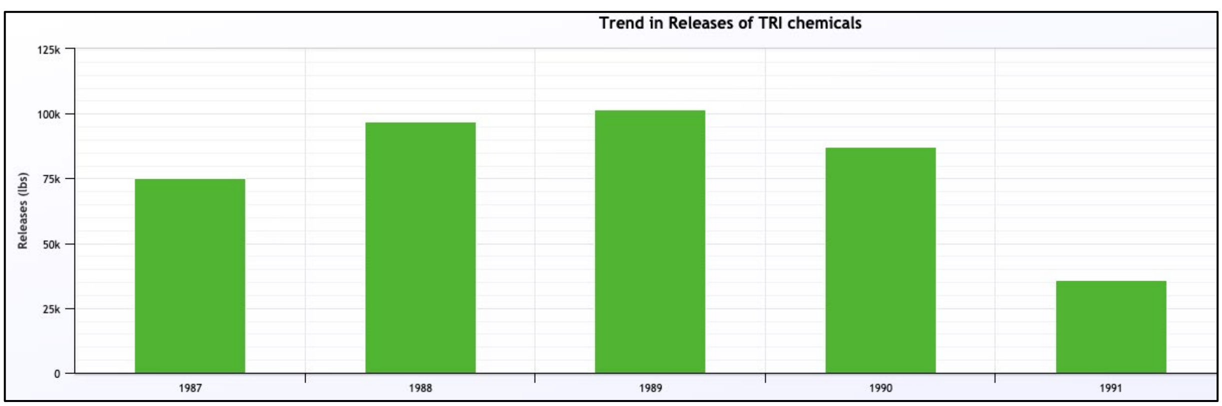
30. The U.S. EPA warns that the NATA is *only* a screening tool that local municipalities can use in order to further investigate emission sources

and potential public health risks. It notes several NATA shortcomings such as the lack of direct measurements of pollutants and data gaps.

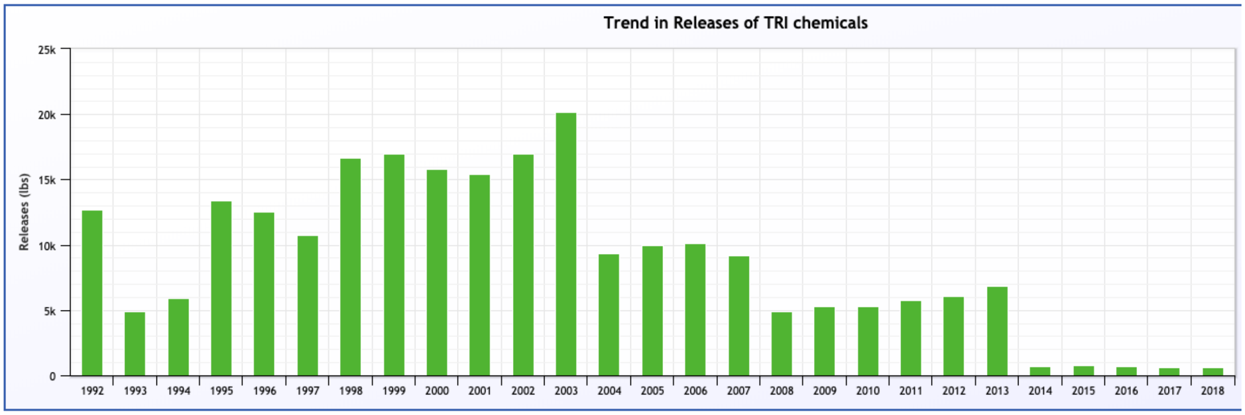
31. Most importantly, the 2014 NATA is a model created on the assumed exposure of a facility's reported 2014 emissions. But the emissions from BD have historically been higher than its reported emissions in 2014.

32. The U.S. EPA maintains a Toxics Release Inventory ("TRI") which includes annual self-reported emissions data from industrial facilities using EtO and other toxic chemicals that pose a threat to human health and the environment.

33. A review of TRI data from the U.S. EPA shows EtO emissions from the BD facility over the course of more than twenty years. *See* Figures 1-3.



(Figure 1, showing ethylene oxide emissions between 1987 and 1991**)**



(<u>Figure 2</u>, showing ethylene oxide emissions between 1992 and 20180**)**

Year	**Fugitive Emissions** (in lbs)	**Stack Emissions** (in lbs)
1987	6,846	68,460
1988	10,233	86,630
1989	11,473	90,282
1990	13,066	73,971
1991	1,700	34,000
1992	103	12,558
1993	1,258	3,651
1994	1,521	4,415
1995	8,250	5,163
1996	8,745	3,823
1997	8,886	1,876
1998	14,024	2,619
1999	14,269	2,709
2000	13,395	2,390
2001	13,134	2,295
2002	14,710	2,274
2003	17,274	2,932
2004	6,164	3,218
2005	6,527	3,404
2006	6,637	3,455
2007	6,028	3,179
2008	2,009	2,933
2009	2,168	3,093

2010	2,224	3,093
2011	2,387	3,340
2012	2,536	3,533
2013	2,845	3,984
2014	580	111
2015	649	122
2016	612	114
2017	555	101
2018	555	100

(Figure 3)

34. From 2004 to 2013, BD has consistently emitted between approximately 4,900 and 10,000 pounds of carcinogenic ethylene oxide from its facility. And, from 1995 to 2003, emitted between 10,700 and 20,200 pounds of EtO. These reported emissions, however, are overshadowed by BD's emission in previous years. For example, in 1987 BD emitted over 75,300 pounds of EtO; over 96,800 pounds in 1988; over 101,700 pounds in 1989; and over 87,000 pounds in 1990.

35. A significant portion of BD's emissions include fugitive emissions from leaking valves and other equipment. These emissions are only based on estimates due to their elusive nature. Between 1997 and 2007, BD's fugitive emissions were greater than its controlled emissions and in 2003 they reached 5.9 times the controlled emissions. *See* Figure 3.

36. BD's recent and widely publicized September 2019 ethylene oxide leak serves as an example of the facility's fugitive emissions. Indeed, from September 17, 2019 through September 22, 2019, BD reported an eight-day EtO leak from its facility. The reported source of the leak was an unclosed exhaust valve.

37. The overall design of its facility and the lack of training BD employees received partially contributed to the facility's fugitive emissions. The city of Covington released an incident report stating that the valve at issue at the BD facility "has no indication to visually determine if it is in the fully closed position." It was not until after the incident, that BD planned to conduct training and educate its technicians on how to properly operate the type of valve that had been involved in the leak.

38. Indeed, Attorney General of Georgia Chris Carr stated that the BD leak was caused by "a lack of diligence and prolonged operator error rather than an equipment malfunction."[1]

39. As a result of BD's emissions of carcinogenic ethylene oxide into the air and the surrounding communities, people living and working in the

[1] OFFICE OF THE ATTORNEY GENERAL OF THE STATE OF GEORGIA, Archived Releases, Oct. 21, 2019, https://law.georgia.gov/press-releases/2019-10-21/carr-epd-file-complaint-against-bd-violations-georgia-law-and-rules (last accessed Apr. 28, 2020).

surrounding communities have been unknowingly exposed to elevated concentrations of EtO.

c. The Georgia Environmental Protection Division's Air Modeling

40. According to the Georgia Environmental Protection Division's ("GA EPD") air modeling, the BD facility exceeds Georgia's annual Acceptable Ambient Concentration for ethylene oxide.

41. The AAC is the maximum allowable air concentration of a toxic air pollutant like ethylene oxide. The GA EPD calculated the annual AAC for ethylene oxide at 0.00033 $\mu g/m^3$ based on the U.S. EPA's Integrated Risk Information System ("IRIS") and the Inhalation Unit Risk ("IUR") for EtO.

42. On June 7, 2019, the GA EPD published its air dispersion modeling of ethylene oxide in the areas surrounding the BD facility in Covington, Georgia. The GA EPD relied on emissions rates provided by BD and discrete receptors placed along the facility's property boundaries.

43. The GA EPD's modeling revealed a maximum ground level concentration ("MGLC")—the concentration of a pollutant to which a human is normally exposed—in excess of the AAC. Specifically, the GA EPD found that the highest annual concentration of ethylene oxide in the previous five years around the facility was 0.163 $\mu g/m^3$—over 493 times the AAC.

44. The GA EPD also modeled the ethylene oxide levels in residential areas next to the BD facility. It registered a MGLC of ethylene oxide between 0.008 μg/m^3 and 0.032 μg/m^3 or between twenty-three (23) and ninety-seven (97) times the annual AAC for ethylene oxide.

45. The averaged five year MGLC—designed to asses EtO impact over a longer period of time—also exceeded the AAC levels. Specifically, it registered an annual MGLC of 0.144 μg/m^3. In residential areas, the averaged five year MGLC levels registered between 0.006 μg/m^3 and 0.028 μg/m^3 or between seventeen (17) and eighty-four (84) times the annual AAC for ethylene oxide.

46. The GA EPD concluded that "ethylene oxide concentrations at the nearby residential areas are well above the AAC level.

d. Preliminary Air Monitoring Results

47. Preliminary test results show high levels of ethylene oxide in areas around the BD facility and communities in Covington, Georgia. Unsurprisingly, these real-world measurements show higher air concentrations of ethylene oxide in the communities around BD than the GA EPD's air modeling.

48. The city of Covington conducted its own air monitoring tests for seven consecutive days in September 2019 by placing air cannisters in areas around the BD facility.

49. A number of the air cannisters registered the presence of ethylene oxide in high concentrations reaching as high as 15.3 $\mu g/m^3$ in an area adjected to the BD facility—significantly higher that the GA EPD's initial air modeling. Indeed, that concentration is 765 times higher than the U.S. EPA's acceptable limit[2] and over 46,363 times the AAC for ethylene oxide exposure.

50. In a residential neighborhood adjacent to BD's facility, a cannister registered EtO levels from nondetectable up to 13.8 $\mu g/m^3$. That concentration level corresponds with an EtO concentration that is 690 times the U.S. EPA's level of concern.

51. On October 30, 2019, BD voluntarily shut down its facility until it addresses fugitive emissions from its facility and installs pollution control equipment.

52. The full extent of BD's EtO emissions throughout Covington will not be entirely known to those living and working in the area until government agencies conduct and publish long-term air monitoring results that take into

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[2] For reference, the U.S. EPA associates a concentration of ethylene oxide of 0.02 $\mu g/m^3$ with a 100-in-a-million cancer risk for a lifetime of continuous exposure.

account changing wind patterns and measurements reflecting BD's operation at full capacity.

FACTS SPECIFIC TO PLAINTIFF ROSE

53. Plaintiff Roosevelt Rose, Jr. has been a resident of Covington, Georgia since 1996 and has continuously lived and worked less than three miles from the BD facility.

54. Roosevelt consistently and without any knowledge that he was doing so, inhaled air in and around his home and in the areas surrounding the BD facility.

55. As a result, Roosevelt was diagnosed with Chronic Myelogenous Leukemia in 2014.

56. At the time of his diagnosis, Roosevelt did not have notice that his medical condition was caused by Defendant's emissions of ethylene oxide.

COUNT I
Negligence
(On Behalf of Plaintiff and Against Defendant BD)

57. Plaintiff incorporates the foregoing allegations as if fully set forth herein.

58. At all times relevant, Defendant owed a duty to exercise reasonable care in the operation of its facility, including the emission of EtO.

59. Notwithstanding its duty, Defendant breached its duty in one or more of the following ways:

a. Emitting dangerous volumes of EtO into the air from its facility;

b. Disregarding safe methods to adequately control EtO emissions from its facility;

c. Failing to control and report fugitive emissions of EtO;

d. Failing to warn or advise those who live or work in the community that they were being exposed to EtO; and

e. Subjecting those who live and work nearby its facility to an elevated cancer risk.

60. As a proximate result of one of the aforesaid negligent acts or omissions, Plaintiff Roosevelt Rose, Jr. suffered injuries of a personal and pecuniary nature.

COUNT II
Willful and Wanton Misconduct
(On Behalf of Plaintiff and Against Defendant BD)

61. Plaintiff incorporates the foregoing allegations as if fully set forth herein.

62. At all times relevant, Defendant owed a duty to refrain from willful and wanton misconduct and/or conduct which exhibited an indifference and/or

conscious disregard to the health, safety, and well-being of Plaintiff and those living and working in the area surrounding its facility.

63. Notwithstanding its duty, Defendant breached its duty in one or more of the following ways:

a. Emitting dangerous volumes of EtO into the air from its facility;

b. Disregarding safe methods to adequately control EtO emissions from its facility;

c. Failing to control and report fugitive emissions of EtO;

d. Failing to warn or advise those who live or work in the community that they were being exposed to EtO; and

e. Subjecting those who live and work nearby its facility to an elevated cancer risk.

64. As a proximate result of Defendant's willful and wanton acts or omissions, Plaintiff Roosevelt Rose, Jr. suffered injuries of a personal and pecuniary nature.

COUNT III
Private Nuisance
(On Behalf of Plaintiff and Against Defendant BD)

65. Plaintiff incorporates the foregoing allegations as if fully set forth herein.

66. The right of enjoyment of private property is an absolute right of every citizen.

67. Defendant knew EtO to be hazardous and harmful to humans.

68. Defendant knew or should have known that the levels of EtO gas emitted from its facility would have a toxic, poisonous, and deleterious effect upon the health, safety, and well-being of people living and working in the community.

69. Defendant knew or should have known that the levels of EtO gas emitted from its facility would have a toxic, poisonous, and deleterious effect upon the health, safety, and well-being of persons breathing it.

70. Defendant's operation, maintenance, and use of its sterilizing facility caused those who live and work in the area surrounding its facility to breathe air containing high levels of EtO on a routine and constant basis, causing a substantially elevated risk of cancer.

71. Defendant's emissions of carcinogenic EtO interfere with Plaintiff's enjoyment of property and cause hurt, inconvenience, or damage to Plaintiff.

72. As a proximate result of Defendant's operation, maintenance, and use of its sterilizing facility, Plaintiff's right to breathe clean air without dangerous levels of carcinogens, such as EtO, was eliminated and/or severely diminished.

73. As a proximate result of Defendant's operation, maintenance, and use of its sterilizing facility, EtO continuously invaded and contaminated the areas surrounding Defendant's facility, including Plaintiff's residence.

74. As a proximate result of Defendant's use and emission of EtO, Plaintiff was exposed to and inhaled great amounts of EtO.

75. As a proximate result of Defendant's use and emission of EtO, Plaintiff sustained and will continue to sustain severe and permanent damage to his health due to the emission of EtO.

76. As a proximate result of Plaintiff's inhalation of EtO from Defendant's facility, Plaintiff suffered injuries of a personal and pecuniary nature.

COUNT IV
Ultrahazardous Activity/Strict Liability
(On Behalf of Plaintiff and Against Defendant BD)

77. Plaintiff incorporates the foregoing allegations as if fully set forth herein.

78. Defendant's use and emission of EtO from its medical sterilization facility constitutes an ultrahazardous activity.

79. Defendant's use and emission of EtO created a high degree of risk to those who live and work in the surrounding area. Further, the likelihood of

cancer caused by Defendant's use and emission of EtO is significantly higher the level of acceptable risk.

80. Defendant's use and emission of EtO is especially inappropriate given the densely populated, residential, and commercial area in which its facility is located.

81. The activities, as conducted by Defendant, are exceedingly dangerous and offer little to no value to the surrounding community.

82. Because Defendant's activities are ultrahazardous, it is strictly liable for any injuries proximately resulting therefrom.

83. As a direct and proximate result of Defendant's ultrahazardous activities, Plaintiff was exposed to and inhaled great amounts of EtO.

84. As a proximate result of Plaintiff's inhalation of EtO from Defendant's facility, Plaintiff suffered injuries of a personal and pecuniary nature.

PRAYER FOR RELIEF

WHEREFORE, Plaintiff Roosevelt Rose, Jr. requests that the Court enter judgment in his favor and against Defendant as follows:

a. An award of damages, including nominal and compensatory damages, as allowed by law and in an amount to be determined;

b. An award of punitive damages as allowed by law and in an amount to be determined;

c. An award of attorneys' fees and costs and litigation expenses;

d. An award of prejudgment interest on all amounts awarded;

e. An Order for injunctive and declaratory relief; and

f. Such other and further relief as this Court may deem just and proper.

JURY TRIAL

Plaintiff demands a trial by jury for all issues so triable.

Respectfully submitted,

ROOSEVELT ROSE, Jr.,

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